

2.0 BACKGROUND

2.1 HISTORY OF THE SITE

In the late 1940s, North American Aviation acquired land in the Simi Hills between the Simi and San Fernando Valleys. That land, now known as the SSFL, was used primarily for the testing of rocket engines. Atomics International, a division of North American Aviation, was formed in 1955, and part of Area IV was set aside and used for nuclear reactor development and testing. In 1984, Rocketdyne merged with Atomics International. The Boeing Company purchased Rocketdyne in 1996.

Activities in Area IV started in the mid-1950s; until 1964, these activities were primarily related to sodium-cooled nuclear power plant development and development of space power systems with sodium and potassium as coolants. ETEC (originally known as the Liquid Metal Engineering Center) was formed in the mid-1960s as an Atomic Energy Commission (now DOE) laboratory for the development of liquid metal heat transfer systems in support of the Liquid Metal Fast Breeder Reactor Program. Nuclear operations at ETEC included 10 nuclear research reactors, 7 critical facilities, the Hot Laboratory, the Nuclear Materials Development Facility, the Radioactive Materials Handling Facility (RMHF), and various test and nuclear material storage areas. As a result of DOE nuclear activities, several ETEC facilities became radioactively activated and/or contaminated.

Activation

Neutrons are electrically neutral subatomic particles. In a nuclear reactor, neutrons from uranium (contained in cylindrical fuel pellets and placed in fuel assemblies) strike other uranium atoms, causing them to split into parts. This produces heat, radioactive fission products, gamma rays, and more free neutrons. The neutrons produced by the fission process sustain the nuclear reaction by striking other uranium atoms in the fuel, causing additional atoms to split. During nuclear reactor operations, some neutrons generated by the fission process leave the reactor core. These neutrons enter the concrete shielding surrounding the reactor. This interaction causes some elements in the concrete to gain neutrons and become radioactive themselves. At two ETEC facilities (Buildings 4059 and 4024), the shielding concrete contains low levels of activation products as a result of the nuclear operations that were conducted in those buildings in the past. The activation products produced in shielding and structural materials (e.g., rebar) are tritium, iron-55, nickel-63, cobalt-60, and europium-152/154.

All nuclear operations ended in 1988. Since that time, DOE-funded activities have focused on decontamination and decommissioning of the ETEC facilities and offsite disposal of waste. Remediation of ETEC is now in its final stages. Three facilities still contain residual radiological contamination and/or activation.

DOE also conducted large-scale heat transfer and fluid mechanics experiments, using nonradioactive sodium metal in a molten state at ETEC. While not a contaminant, sodium metal is the most significant hazardous chemical substance remaining at ETEC. Most of the sodium has been removed and shipped off site for reuse at other industrial sites. Only one sodium facility remains.

Hazardous materials such as asbestos insulation and lead-based paint were also used in ETEC facilities.

In addition to DOE-sponsored activities, the SSFL has also been used by Boeing, the National Aeronautics and Space Administration (NASA), and the Department of Defense for rocket and laser testing, which have also resulted in hazardous chemical contamination. DOE is responsible only for contamination resulting from DOE-sponsored activities. Contamination on other portions of the SSFL is the responsibility of other federal agencies and private entities.

2.2 REGULATORY FRAMEWORK

Under the authority of the Atomic Energy Act (42 U.S.C. 2011 *et seq.*), DOE is self-regulating and is responsible for establishing a comprehensive health, safety, and environmental program for managing its facilities through the promulgation of regulations and the issuance of DOE orders. DOE derives this authority from Section 161 of the Act (42 U.S.C. 2201). In general, DOE orders set forth policies, programs, and procedures for implementing policies.

Decontamination activities are governed by DOE Order 5400.5, *Radiation Protection of the Public and the Environment*. Chapters 2 and 4 of this order prescribe an extensive and detailed methodology for restoring DOE sites. DOE Order 435.1, *Radioactive Waste Management*, is also applicable to the cleanup of the radiological facilities at ETEC. Pursuant to this order, DOE has prepared and issued the *ETEC Closure Program – DOE Order 435.1 Implementation Plan*.

To verify that cleanup policies and standards are being followed, DOE has contracted with the Oak Ridge Institute for Science and Education to conduct and document independent verification surveys at ETEC facilities. The Oak Ridge Institute for Science and Education has established an Environmental Survey and Site Assessment Program that conducts radiological surveys and environmental assessments for government agencies working to clean up facilities contaminated with hazardous or radioactive materials. The Institute verifies that the sites are free of any contamination that may be harmful to the public or the environment by using a combination of laboratory and field capabilities to control all aspects and phases of the survey process. Institute staff follow systematic procedures to collect samples for analyses in their laboratory. Should these analyses indicate that contaminants remain above acceptable levels, the Institute recommends actions to be taken.

As an Agreement State under the provisions of the Atomic Energy Act, the State of California also has jurisdiction over some radiological activities at ETEC. The California Department of Health Services oversees the radioactive materials license held by Rocketdyne, radioactive facility cleanup, and environmental monitoring. The Department of Health Services also conducts unannounced inspections to verify the amounts and types of radioactive materials being used onsite, evaluates radiation exposure to employees and the general public, and reviews records related to radiation usage at the site. In particular, this department concurs with DOE findings that former DOE radiological facilities at ETEC that have been decontaminated and decommissioned may be released for unrestricted use in accordance with state regulatory standards.

Cleanup of chemical contamination at ETEC is regulated under the Resource Conservation and Recovery Act (RCRA) (42 U.S.C. 6901 *et seq.*). As part of Area IV of the SSFL, ETEC is subject to several ongoing RCRA actions: closure of inactive RCRA treatment, storage, or disposal units; compliance/permitting of active RCRA units; groundwater characterization and remediation; and RCRA corrective actions. These activities are under the jurisdiction of the California Environmental Protection Agency's Department of Toxic Substances Control, pursuant to delegated authority from the U.S. Environmental Protection Agency (EPA). The Department of Toxic Substances Control is preparing an environmental impact report, in accordance with the California Environmental Quality Act, for the corrective measures to be undertaken by the RCRA Corrective Action Program for all of the SSFL,

including ETEC. The environmental impact report will be based in part on information generated from the characterization of chemical releases at SSFL performed in the RCRA corrective action process.

Compliance with RCRA

RCRA establishes a comprehensive regulatory program for the management of hazardous waste and the cleanup of active sites where releases have occurred. RCRA requires that hazardous wastes be treated, stored, and disposed of so as to minimize present and future threats to human health and the environment. RCRA applies mainly to active facilities that generate and manage hazardous wastes.

DOE facilities that store, treat, or dispose of hazardous waste or waste containing hazardous constituents are subject to RCRA requirements and must obtain a permit from EPA or from states that have been delegated permit authority by EPA. The Federal Facility Compliance Act, 42 U.S.C 6961, waives DOE's sovereign immunity by allowing states to impose fines and penalties for RCRA violations.

RCRA compliance programs include the following activities: permitting storage, treatment, and disposal facilities; closing inactive RCRA-permitted facilities; and undertaking corrective actions to address chemical contamination at active sites. Developing corrective actions involves the preparation of a RCRA facility assessment, facility investigation, corrective measures study, and corrective measures implementation. Facility assessments are used to identify solid waste management units (defined as any location where hazardous materials were used, stored, or handled) and areas of concern.

In 1989, a RCRA facility assessment identified solid waste management units and areas of concern at the SSFL. The SSFL corrective action process is currently at the RCRA facility investigation stage.

Because the cleanup of the chemical contamination at ETEC is being undertaken in the larger context of the SSFL and under a separate regulatory process, these activities are not part of the proposed action or alternatives analyzed in this EA. DOE has analyzed the cumulative impacts of the cleanup of the ETEC facilities for which DOE is responsible and the ongoing RCRA cleanup at the SSFL (*see* Section 4.14).

Other federal, state, and local agencies are also involved in various oversight activities at ETEC and the SSFL:

- ***EPA's Office of Radiation and Indoor Air*** is the lead agency responsible for enforcing those provisions of the National Emissions Standards for Hazardous Air Pollutants (NESHAP) related to radionuclides. Although nuclear operations are no longer conducted at ETEC, these standards also apply to ongoing decontamination activities that might produce air emissions. DOE submits annual NESHAP reports to EPA that document radiological releases from the site.
- The ***Regional Water Quality Control Board (Los Angeles Region)*** is the lead agency responsible for regulating surface water discharge activities at the SSFL. Under the authority of the Clean Water Act, 33 U.S.C. 1251 *et seq.*, and the National Pollutant Discharge Elimination System (NPDES), the board sets maximum limits for chemical and radiological contaminants in surface water being discharged from the SSFL. These limits, along with requirements for sampling, are incorporated into the site's NPDES permit, which must be renewed every 5 years. The board also shares responsibilities with the California Department of Toxic Substances Control for monitoring discharges to the groundwater.

- The ***Ventura County Environmental Health Division*** is responsible for enforcing regulations on hazardous waste generation and storage, pursuant to an agreement with the State of California.
- The ***Ventura County Air Pollution Control District*** is the lead agency responsible for regulating nonradioactive air emissions at the SSFL. The district is responsible for establishing and enforcing local air pollution regulations that meet or exceed requirements of the federal and California State Clean Air Acts and the California Health and Safety Code. The district also issues permits that establish requirements for construction, modification, and operation of equipment and processes that may result in air emissions. The SSFL currently has five permits covering various process equipment and groundwater treatment facilities. Other responsibilities of the district include regulating asbestos removal projects, implementing the vehicle trip reduction program, and overseeing the state-mandated Air Toxics “Hot Spot” Program that requires facilities to inventory all toxic materials that could result in airborne releases.

2.3 FACILITY DESCRIPTIONS

At its mission peak, ETEC consisted of over 200 facilities. Since the decision to close ETEC in 1996, many facilities have been decontaminated, decommissioned, and demolished. These activities were conducted under categorical exclusions pursuant to DOE’s NEPA regulations (10 CFR Part 1021, Appendix B to Subpart D). Approximately 64 structures remain.

Three radiological facilities (comprising a total of 13 buildings) and one sodium facility are the subject of this EA. In addition, 50 other DOE support facilities (for example, office and storage buildings, warehouses, parking lots, electrical substations) are proposed for demolition. Figure 2-1 shows the locations of these facilities within ETEC. This section describes these facilities.

2.3.1 Radiological Facilities

The three radiological facilities are the RMHF Complex, Building 4059, and Building 4024. In addition, two other former radiological ETEC facilities have already been decontaminated and released for unrestricted use by DOE, with the concurrence of the California Department of Health Services. One other facility has been decontaminated and is pending release by DOE. Because these facilities are no longer contaminated but have not been demolished, they are included in the discussion of other DOE support facilities (*see* Section 2.3.3).

2.3.1.1 Radioactive Materials Handling Facility Complex

The RMHF complex consists of nine different buildings that are used for the following purposes: decontamination and packaging (Building 4021); operations and storage vaults (Building 4022); offices (Building 4034); health physics services (Building 4044); enclosed storage (Buildings 4075, 4621, and 4665); covered storage (Building 4688); and security (Building 4658). A rainwater runoff catch basin (referred to as Building 4614) is also included within the approximately 12,000-square-meter (3-acre) RMHF. The RMHF has been in continuous operation as a storage and handling facility for radioactive materials and waste since the late 1950s. It is a RCRA-permitted facility. Operations at the RMHF include waste characterization, limited treatment, packaging, and temporary storage of radioactive and mixed waste materials, which are shipped offsite to appropriate approved disposal facilities. The facility is radiologically contaminated from past operations, including the storage of both new fuel and irradiated fuel.

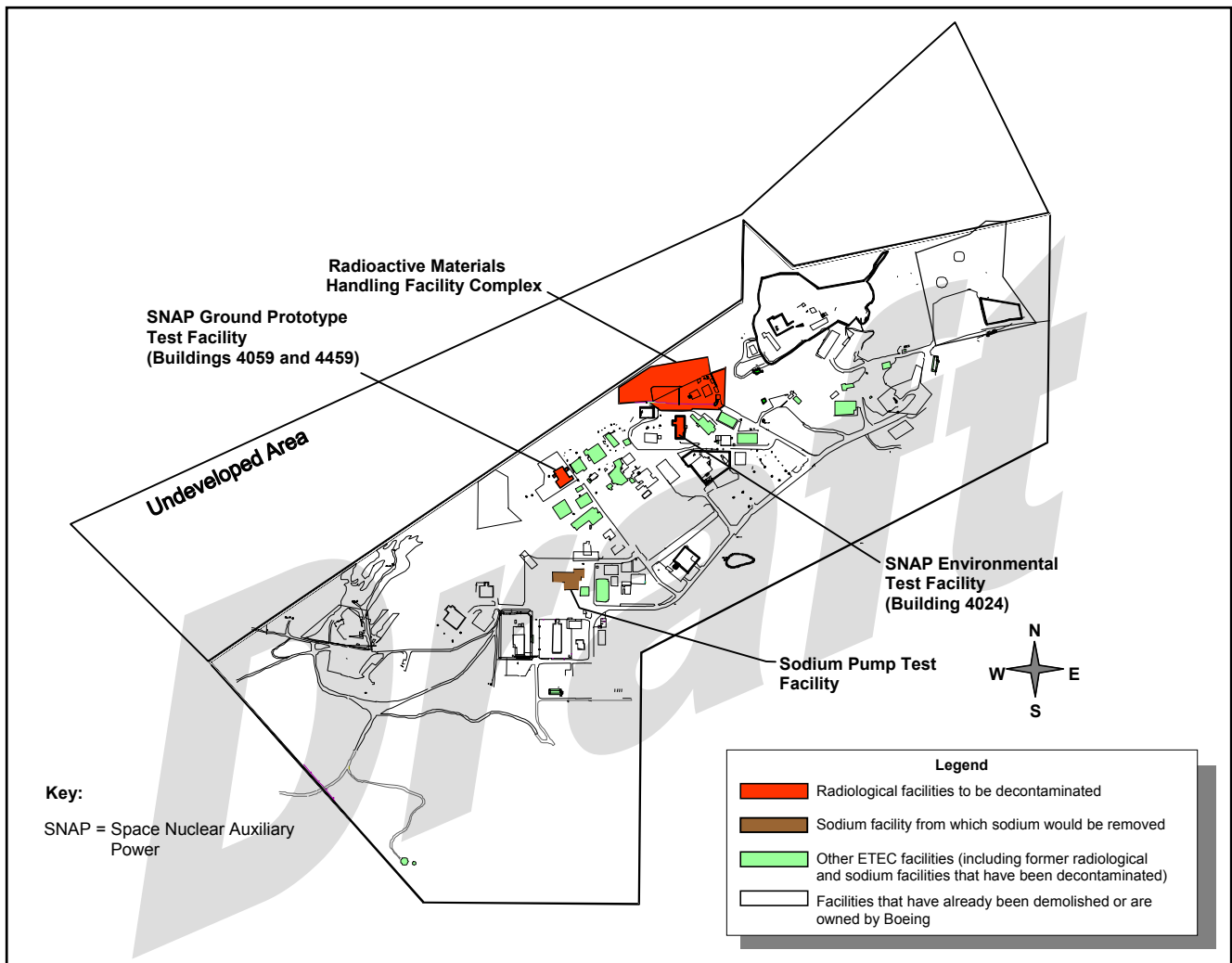


Figure 2-1. ETEC Radiological, Sodium, and Other Uncontaminated or Decontaminated Facilities

Radioactive Waste Types at ETEC

Activities at ETEC have resulted in the generation of three types of radioactive waste: low-level radioactive waste (LLW), mixed low-level waste (MLLW), and transuranic (TRU) waste.

LLW includes all radioactive waste that is not classified as high-level radioactive waste, spent nuclear fuel, TRU waste, uranium and thorium mill tailings, or waste processed from ore. Most LLW consists of relatively large amounts of waste materials contaminated with small amounts of radionuclides, such as contaminated equipment, protective clothing, paper, rags, packing material, and soil. Most LLW contains short-lived radionuclides and generally can be handled without additional shielding or remote handling equipment.

MLLW is LLW that also contains hazardous components regulated under RCRA. MLLW results from a variety of activities, including the processing of nuclear materials used in energy research and development.

TRU waste is waste that contains alpha particle-emitting radionuclides with atomic numbers greater than uranium (92) and half-lives greater than 20 years in concentrations greater than 100 nanocuries per gram of waste. Some TRU waste also contains hazardous components regulated under RCRA, making it a mixed waste. In accordance with earlier DOE decisions, TRU waste will be disposed of at the Waste Isolation Pilot Plant (WIPP) near Carlsbad, New Mexico.

The RMHF is in active use. Operated safely since its initial use, the RMHF was designed and constructed to withstand naturally occurring hazards including wind, earthquakes, landslides, and rainwater flooding. Adequate systems and controls are in place to minimize direct radiation exposure to personnel and the release of radioactive material into the environment. All potential hazards have been identified and engineering controls have been incorporated into the operation of the facility to ensure that safe operation is maintained at all times. Design safety features include security and radiation controls, evacuation routes, shielding provisions, ventilation and filtration, site water runoff control, alarm instrumentation, and fire protection. Ventilation from work areas in the RMHF is exhausted through high efficiency particulate air filters and released from a stack. Emissions from this exhaust stack are monitored and reported.

2.3.1.2 Building 4059

Building 4059, the Space Nuclear Auxiliary Power Ground Prototype Test Facility, was built in 1962-1963 for development testing of space nuclear auxiliary power reactors. It has one reactor vault in the basement (another vault in the basement did not house a reactor). Testing of the reactor was conducted in 1968-1969. The reactor vault was made radioactive by neutron activation during the reactor tests. At the end of the test operations, the reactor core and control system were removed, sent to an onsite examination facility for inspection, and then shipped offsite for disposal. Sufficient decontamination was done at that time to make a portion of the facility available for other use. In 1999, the above-grade portion of the building and the underground, nonactivated portions of the basement were decontaminated and surveyed for release for unrestricted use. Building 4459 (a storage building) is within the fence line boundary of Building 4059.

2.3.1.3 Building 4024

Building 4024, the Space Nuclear Auxiliary Power Environmental Test Facility, contained two reactors, which were operated in two different vaults. Criticality tests were also conducted in this facility. As in

Building 4059, the reactor vaults were made radioactive by neutron activation during the reactor tests. The reactors and associated equipment have all been removed and disposed of as radioactive waste. Some activated concrete shielding and reinforcing steel rods remain in the vaults.

2.3.2 Sodium Pump Test Facility (Building 4462)

The Sodium Pump Test Facility (SPTF) has two circulating sodium loops with transient capability and was used to test large sodium pumps, valves, and flow meters. It currently contains approximately 197,000 liters (52,000 gallons) of liquid sodium. All DOE-sponsored activities at the facility have ceased. With DOE authorization, however, Rocketdyne used the SPTF under a commercial contract to perform electromagnetic pump testing using sodium. This project, which did not involve the use of radioactive materials, was completed in late 2001.

Sodium

Metallic sodium is an excellent heat transfer medium and, for that reason, has been used as a coolant in nuclear reactors. It is not radioactive. Sodium does react vigorously with water, steam, oxygen, carbon dioxide, and several other common substances. The initial and secondary reactions may be violent. Sodium can burn spontaneously in air, releasing caustic fumes.

Activities at the SPTF have been classified as low-hazard because they present minor onsite and negligible offsite impacts to people or the environment. The facility was designed in accordance with applicable codes, and the Rocketdyne system of procedures applies to activities undertaken in the facility. These procedures include environment, safety, and health procedures, which ensure compliance with applicable federal, state, and local rules and regulations. Training of personnel and performance of operations in accordance with the procedures reduce the potential for accidents during operations.

Other sodium facilities at ETEC included the Liquid Metal Development Loops, Sodium Components Test Laboratory, Sodium Component Test Installation Complex, and Former Sodium Disposal Facility. The sodium has been removed from all of these facilities and they have either been demolished or are proposed for demolition. Because they no longer contain any sodium, the former sodium facilities that have not been demolished but that are proposed for demolition are included in the discussion of other DOE support facilities (*see* Section 2.3.3).

2.3.3 Other DOE Support Facilities

Other facilities were constructed at ETEC to support DOE programs there. The structures include:

- Office buildings
- Electrical substations
- Storage buildings
- Emergency generator shelters
- Time card buildings
- Fuel oil storage tanks and piping systems
- Foundations
- Vaults and berms
- Former sodium facilities from which all sodium has been removed

Most of these facilities were not in radiological areas and have been demolished. Currently, approximately 50 uncontaminated support facilities are still present at the ETEC site (Table 2-1). These facilities include the sodium facilities from which the sodium has already been removed and two former

Table 2-1. Other Support Facilities at ETEC

Building	Building Name/Description
4012	X-Ray Facility / Storage
4013	Seismic Test Facility
4014	Storage Facility
4019	Equipment Storage and Computer Center
4027	Former Weld Shop
4029	Sodium/Hazardous Waste Storage
4032	Liquid Metal Development Loops 1 Lab
4038	ETEC Headquarters/Office Building.
4039	Office Building
4042	Liquid Metal Fast Breeder Reactor Development Testing
4057	Liquid Metal Development Loops 2 Lab
4133	Hazardous Waste Treatment Facility
4228	Power Pak
4334	Kalina Control Room
4335	Kalina Turbine Generator Bldg
4354	Control Element Test Structure
4355	Sodium Components Test Installation Complex Control Center/Offices
4356	Sodium Component Test Installation
4357	Sodium Component Test Installation Storage
4358	Sodium Component Test Installation Support Building
4457	(Foundation and Pit only)
4459	ETEC Storage
4461	SPTF Motor Generator Building
4463	Component Handling and Cleaning Facility
4473	Hydraulic Test Facility
4573	Parking Lot
4626	Warehouse
4641	Warehouse
4663	(Foundation only)
4683	Electrical Substation for Building 4143
4487	Office Building
4710	Sodium Component Test Installation Power Pak Cooling Tower
4713	Electrical Substation for Buildings 4012 & 4013
4719	Electrical Substation for Building 4019
4725	Electrical Substation for Buildings 4024 & 4025
4727	Electrical Substation for Buildings 4027, 4032, 4036
4742	Electrical Substation for Buildings 4023 & 4042
4756	Electrical Substation for Building 4355
4757	Electrical Substation for Buildings 4038 & 4057
4759	Electrical Substation for Building 4059
4760	Electrical Substation for Building 4462
4763	Electrical Substation near Building 4030
4780	Electrical Substation for Building 4463
4805	Timeclock Shack by Sodium Component Test Installation Building 4026
4863	Hydraulic Test Facility
4883	Electrical Substation at Building 4726 Substation
	Electrical Substation for Buildings 4030 and 4041
	Electrical Substation for Building 4228 Power In
	Electrical Substation for Building 4228 Power Out
	Electrical Substation near Building 4015

radiological facilities that have been released by DOE (with the concurrence of the California Department of Health Services) but not yet demolished. Although these facilities do not contain radiological contamination or sodium, some do contain hazardous materials that are typical of those found in comparable commercial or industrial facilities such as asbestos and lead-based paint.

2.4 WASTE MANAGEMENT ACTIVITIES

Small amounts (approximately 50 cubic meters [1,765 cubic feet] in fiscal year 2001) of LLW continue to be generated each year at ETEC as a result of ongoing site closure activities. MLLW is not routinely generated (5 cubic meters [176 cubic feet] of MLLW were generated in fiscal year 2001). TRU waste is no longer generated at the ETEC site.

Currently, DOE sends LLW generated at ETEC to DOE disposal sites (the Nevada Test Site near Las Vegas, Nevada and the Hanford Site in Richland, Washington), or Envirocare, a permitted commercial radioactive disposal facility in Clive, Utah, for disposal in accordance with an earlier DOE decision made pursuant to the *Environmental Assessment of Off-Site Transportation of Low-Level Waste from Four California Sites* (LLW EA) and associated finding of no significant impact. DOE sends most MLLW generated at ETEC to Envirocare. At present, approximately 11 cubic meters (388 cubic feet) of TRU waste are stored onsite at ETEC. DOE will send its TRU waste from ETEC to the WIPP near Carlsbad, New Mexico, in accordance with an earlier DOE Record of Decision made pursuant to the *Waste Isolation Pilot Plant Disposal Phase Final Supplemental Environmental Impact Statement* (WIPP SEIS-II) (63 Fed. Reg. 3624 (1998)).

Radioactive Waste Transportation Analysis

Additional volumes of LLW would be generated as a result of Alternatives 1 and 2; very small amounts of MLLW could also be generated. The shipment of LLW from ETEC to Nevada Test Site or Hanford Site was addressed in DOE's earlier LLW EA. The shipment of MLLW from ETEC to either of these sites was addressed in DOE's *Waste Management Programmatic Environmental Impact Statement*, DOE/EIS-0200-F, May 1997. The results of these analyses are incorporated by reference and the potential impacts of offsite transportation of LLW and MLLW will not be addressed in this EA.

No additional TRU waste is expected to be generated under any of the alternatives. The shipment of TRU waste from ETEC to WIPP was analyzed in the WIPP SEIS-II and the results of that analysis are incorporated by reference. The potential impacts of offsite transportation of TRU waste will not be addressed in this EA.

Small amounts of hazardous waste are generated (1 cubic meter [35 cubic feet] in fiscal year 2001) and disposed of in commercial, licensed hazardous waste disposal facilities in accordance with RCRA and an earlier DOE Record of Decision made pursuant to the *Waste Management Programmatic Environmental Impact Statement*, DOE/EIS-0200-F, May 1997 (63 Fed. Reg. 41810 (1998)). Nonhazardous debris waste is also generated at ETEC (50 cubic meters [1,766 cubic feet] in fiscal year 2001). This type of debris includes asphalt, concrete, and building materials. Debris waste is disposed of at a local municipal landfill.

The ETEC has implemented a Waste Minimization and Pollution Prevention Awareness Program, which includes orientation programs and refreshers, specialized training, and incentive awards and recognition. This program has resulted in the following achievements:

- Oils used in motor vehicles and compressors are shipping to vendors for recycling.
- Usable scrap metal from nonradiological control areas is salvaged using a comprehensive segregation and screening procedure.

- A chemical/material exchange system is linked to the purchasing system to prevent the unnecessary purchase of hazardous materials.
- Empty product drums are returned to the vendor for reuse when practical.
- At the SSFL, approximately 80 percent of office paper and aluminum cans are recycled as a result of increased environmental awareness. In calendar year 2000, 3.9 metric tons (4.3 tons) of white paper and 2.2 metric tons (2.4 tons) of aluminum cans were recycled.

In July 2000, the Secretary of Energy suspended the unrestricted release for recycling of all metals from radiological areas within DOE facilities. This suspension remains in effect pending the outcome of an environmental impact statement on the unrestricted release of such materials from DOE sites. A notice of intent to prepare an environmental impact statement on DOE policy alternatives for the disposition of radioactively contaminated scrap metals was issued on July 12, 2001 (66 Fed. Reg. 36562 (2001)).

2.5 CURRENT STATUS OF THE SITE

The current status of ETEC is described fully in the *Site Environmental Report for Calendar Year 2000*. In general, ongoing environmental monitoring at the site demonstrates that the SSFL does not pose any significant radiological impact on the health and safety of the general public. All significant potential pathways are monitored, including airborne, direct exposure, groundwater, surface water, waste disposal, and recycling pathways. Results of these monitoring activities are contained in Chapter 4 of this EA and in the 2000 Site Environmental Report.

Since 1988, DOE-funded activities have focused on decontamination and decommissioning of the ETEC facilities and offsite disposal of waste. Three facilities still contain residual radiological contamination and/or activation. Only one sodium facility remains.

The SSFL became subject to the RCRA corrective action process in 1989. EPA has performed the preliminary assessment report and the visual site inspection portions of the RCRA facility assessment process. The California Department of Toxic Substances Control has RCRA authorization and has become the lead agency in implementing the corrective action process for the SSFL. Currently, the SSFL RCRA corrective action program is at the RCRA Facility Investigation stage.

Soil contamination. Remediation of hazardous chemical contamination in soil at Area IV will be undertaken in accordance with RCRA. Based on an approved corrective measures study, which follows the RCRA facility investigation (RFI) stage, Rocketdyne will prepare a corrective measures implementation plan that documents remediation requirements for hazardous chemical contamination in Area IV soil.

Groundwater contamination. An extensive groundwater remediation program is ongoing at the SSFL, including Area IV and ETEC. The major groundwater contaminant in Area IV is trichloroethylene (TCE). Interim measures have been implemented to pump and treat areas of known groundwater contamination. In Area IV, contaminated wells are pumped and contaminated groundwater is treated using a granulated activated charcoal filtration system. Groundwater is monitored, sampled, and analyzed regularly. While the pump-and-treat activities are being performed on an interim basis, it is expected that this type of activity may continue under the RCRA corrective measures implementation plan.

Surface water contamination. Surface water is discharged regularly under a NPDES permit administered by the Regional Water Quality Control Board. The only contaminant of concern previously detected in surface water is mercury in sediment that can be mobilized during high flow. Small weirs and settling ponds are in place to prevent the transport of mercury offsite. Surface water and institutional controls to restrict access to contamination at levels of concern will remain in place until monitoring

indicates that additional releases of mercury at levels greater than the NPDES permit limit are no longer possible.

All remediation of soil, groundwater, and surface water chemical contamination will be performed pursuant to the RCRA process under the jurisdiction of the California Department of Toxic Substances Control. Those activities are not the subject of this EA.

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